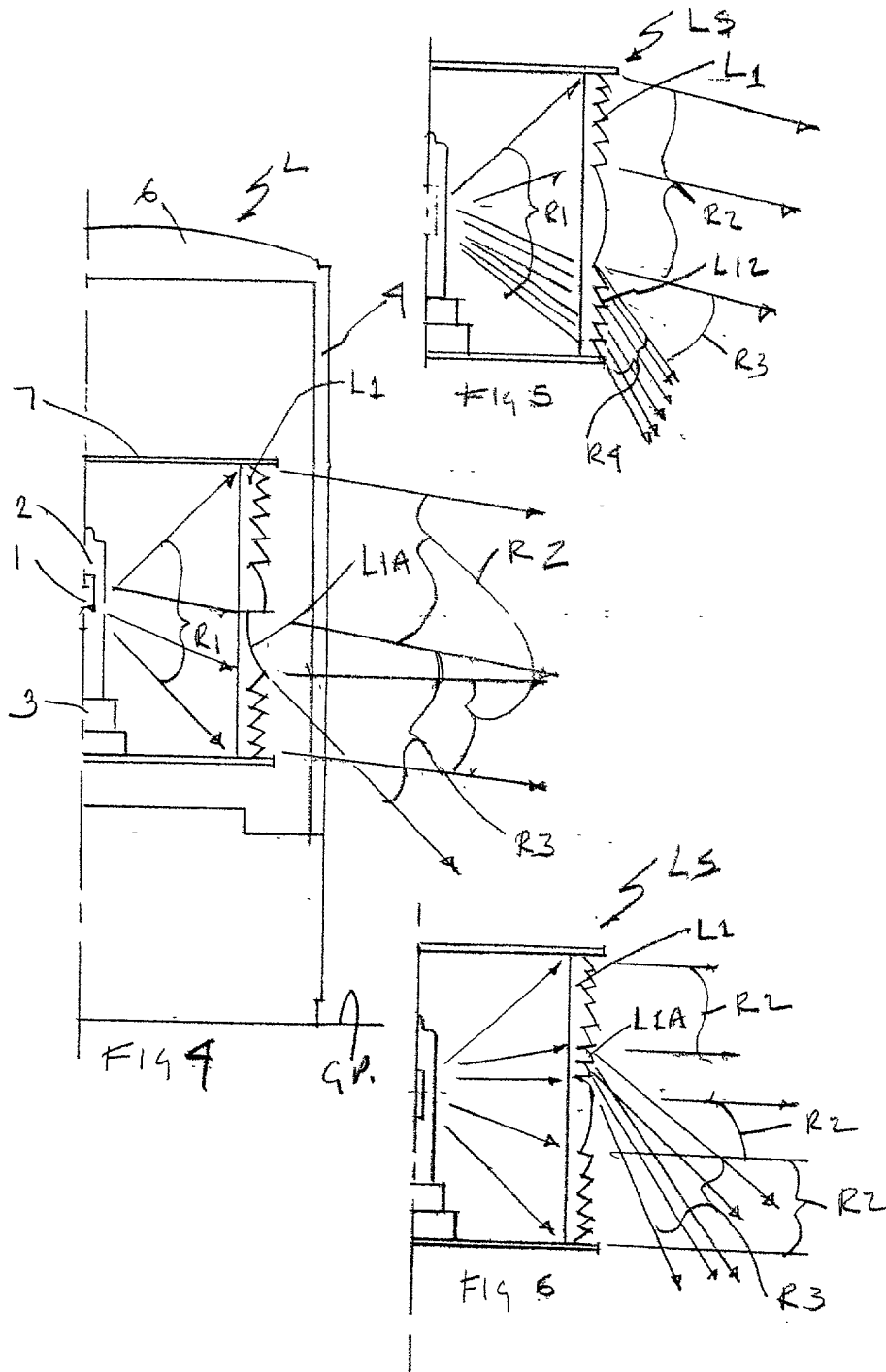


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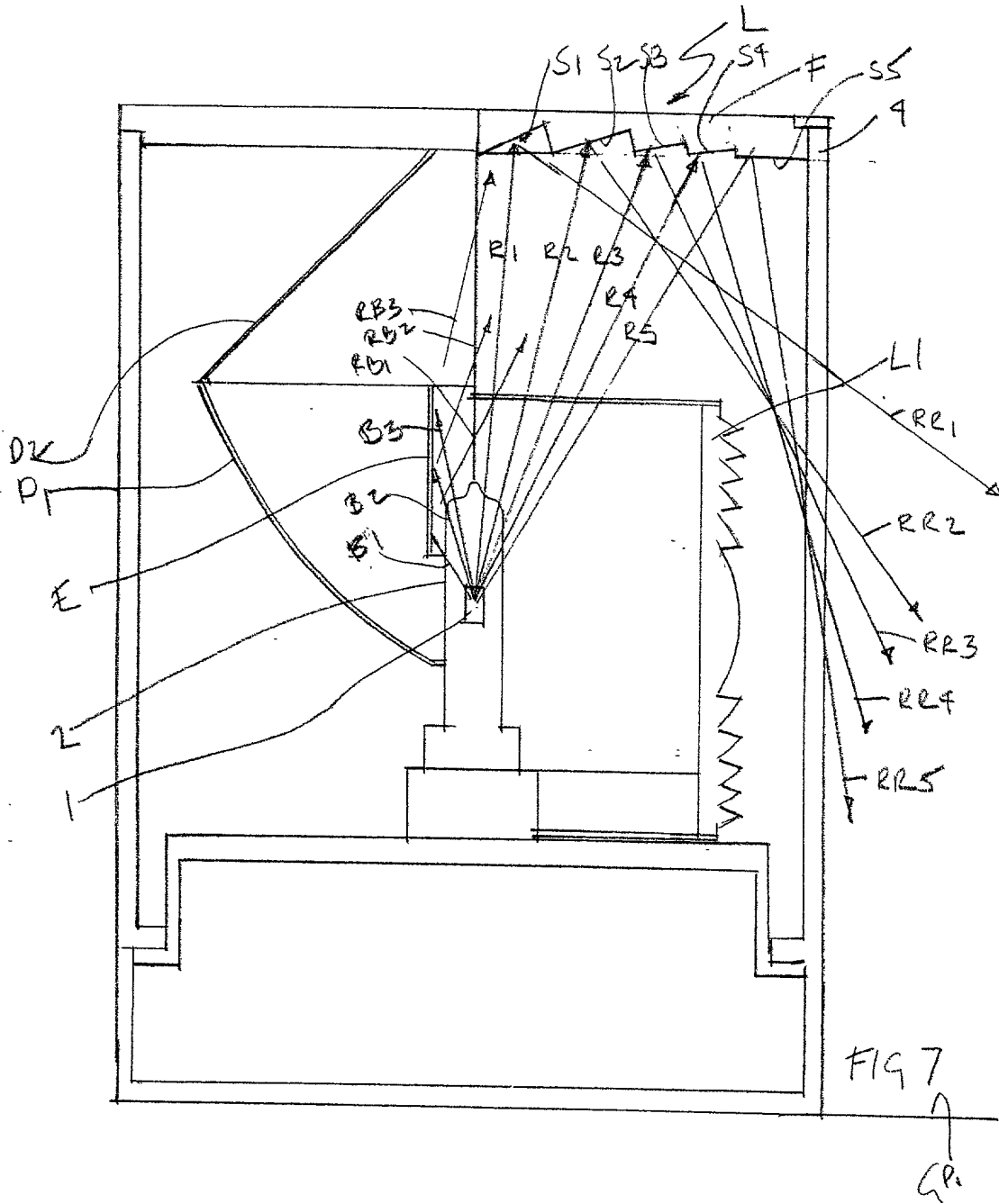
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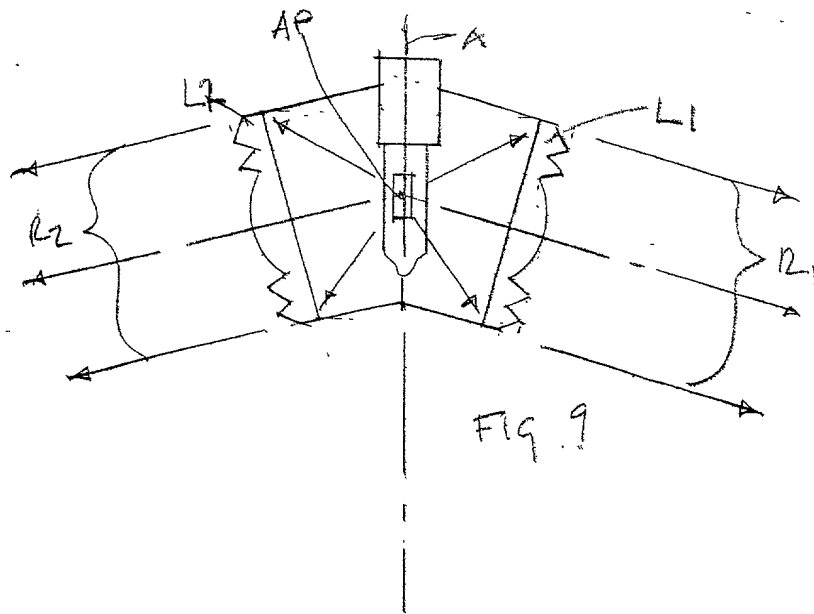
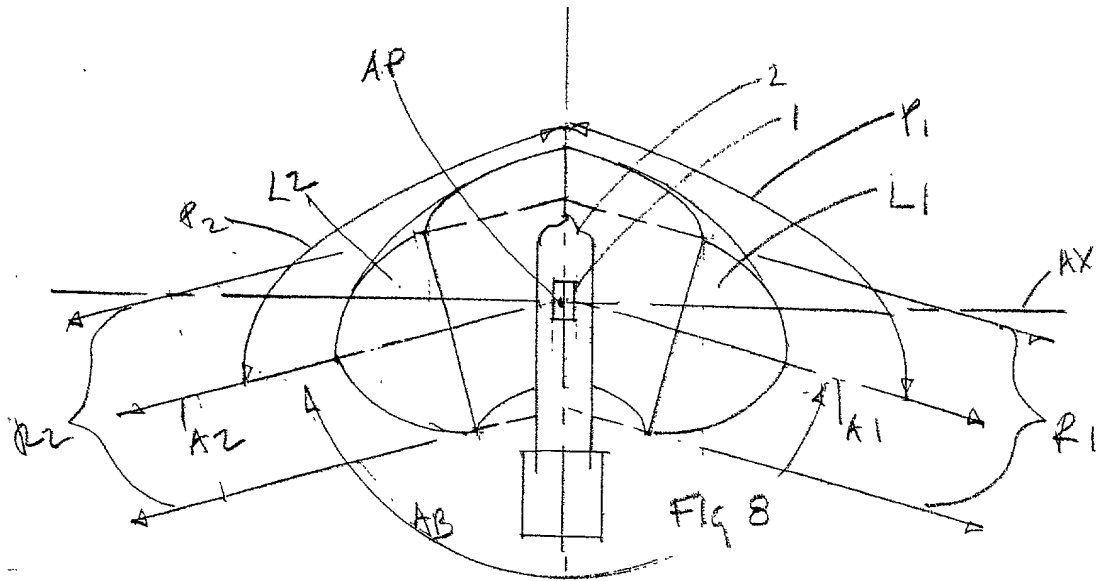
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0574119.05301



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057443.053101

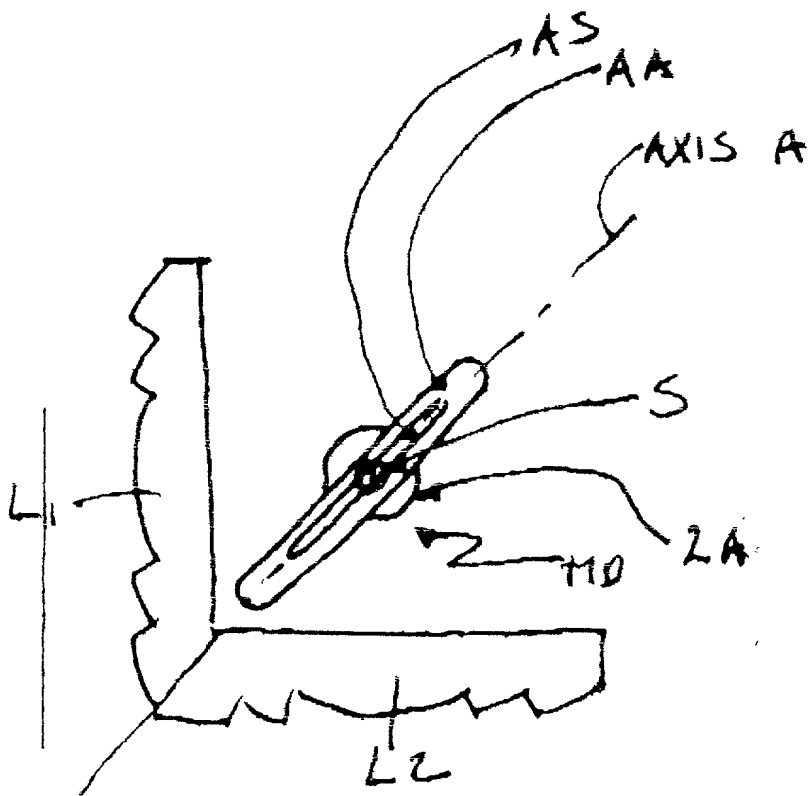
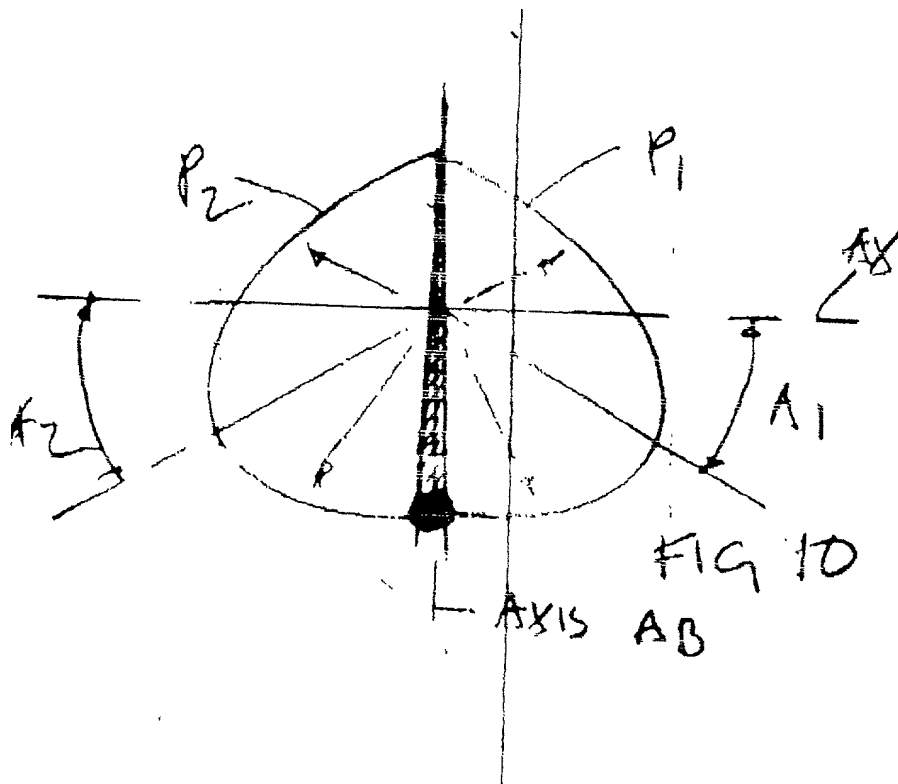
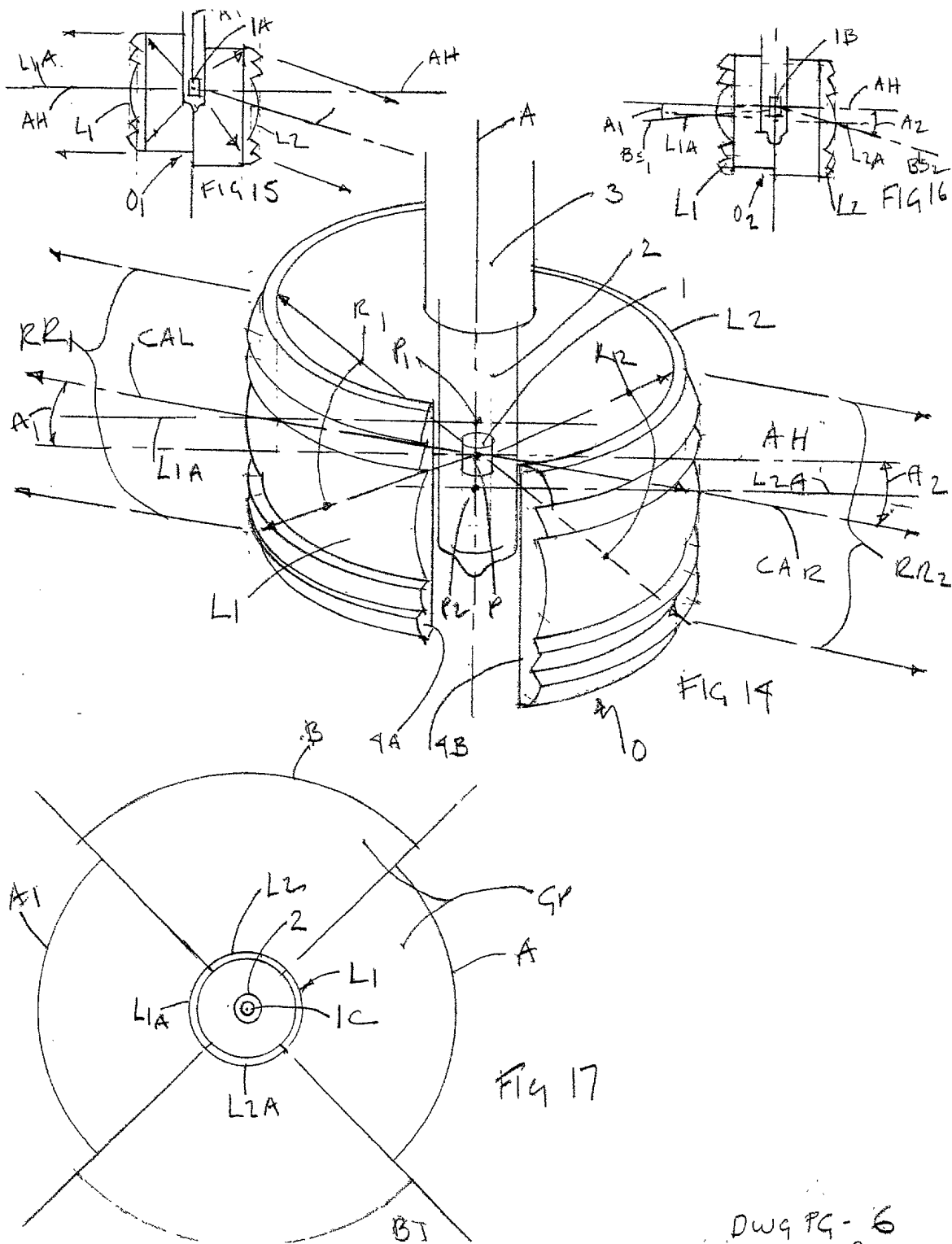


FIG 12 A

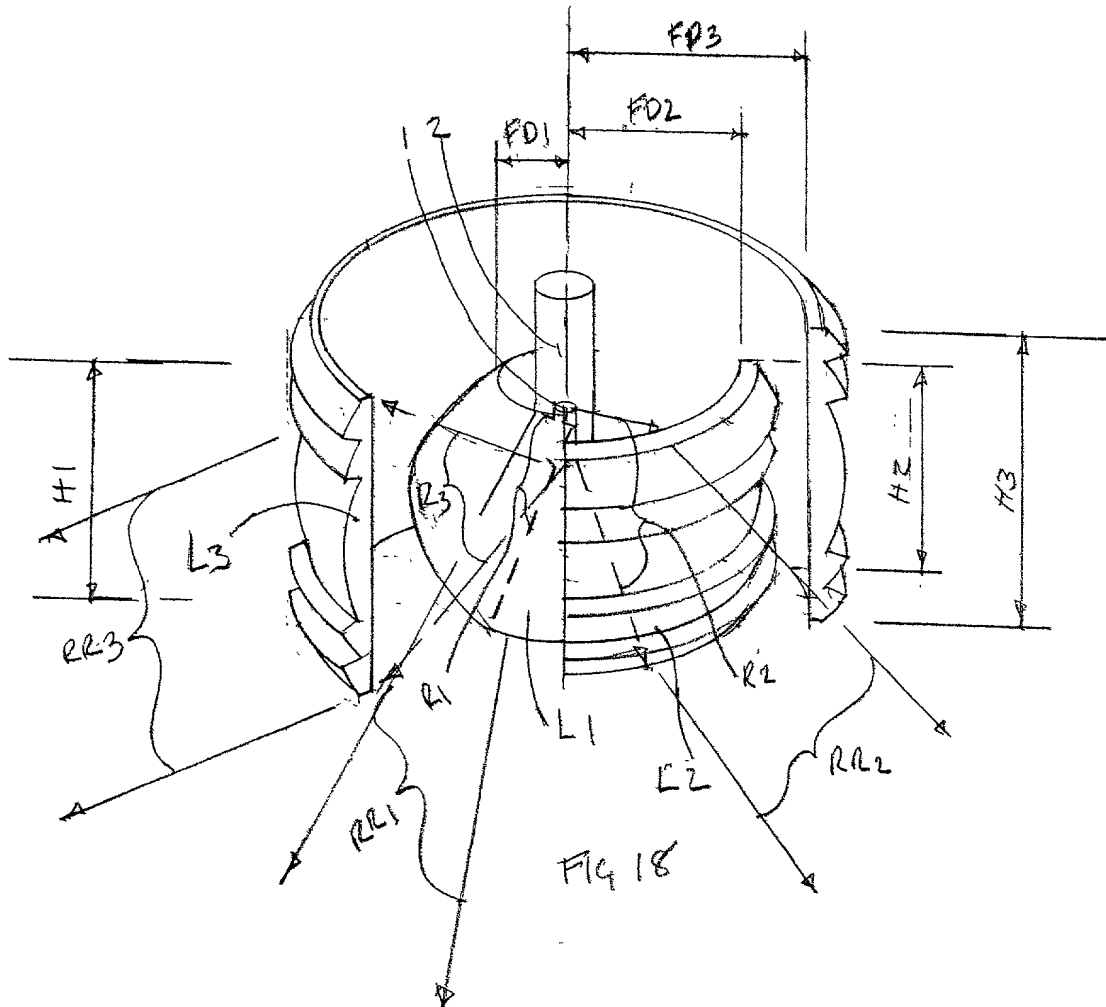


052101 052101 052101



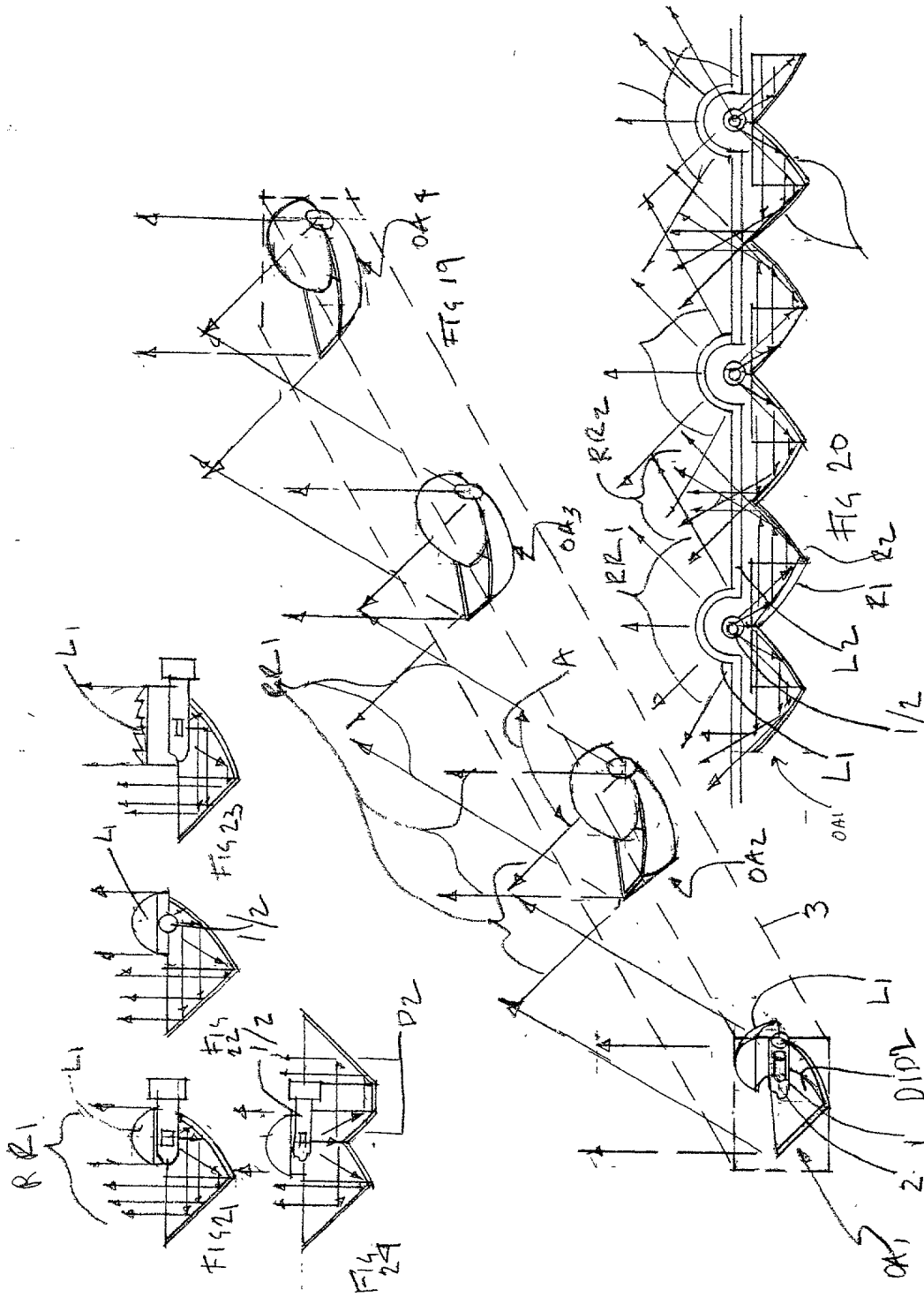
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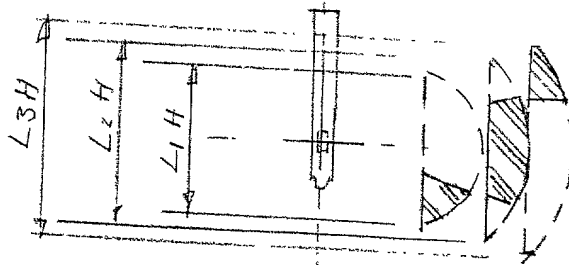
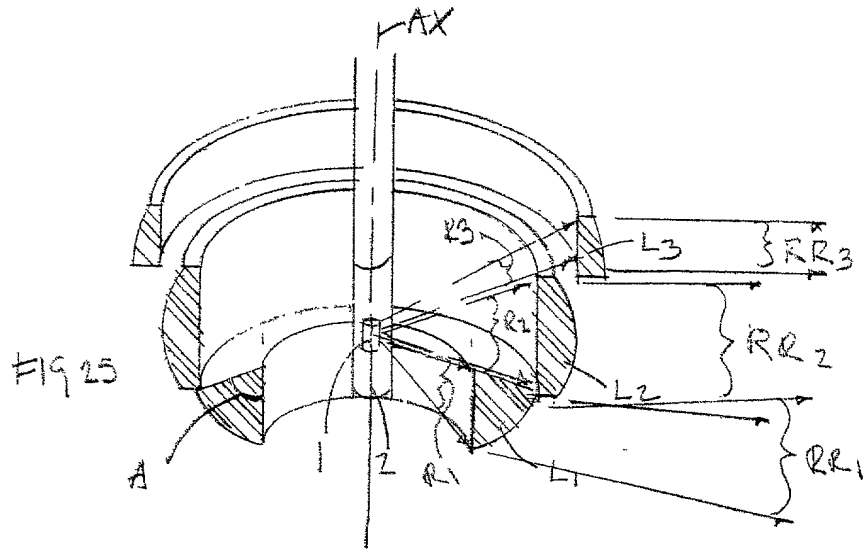
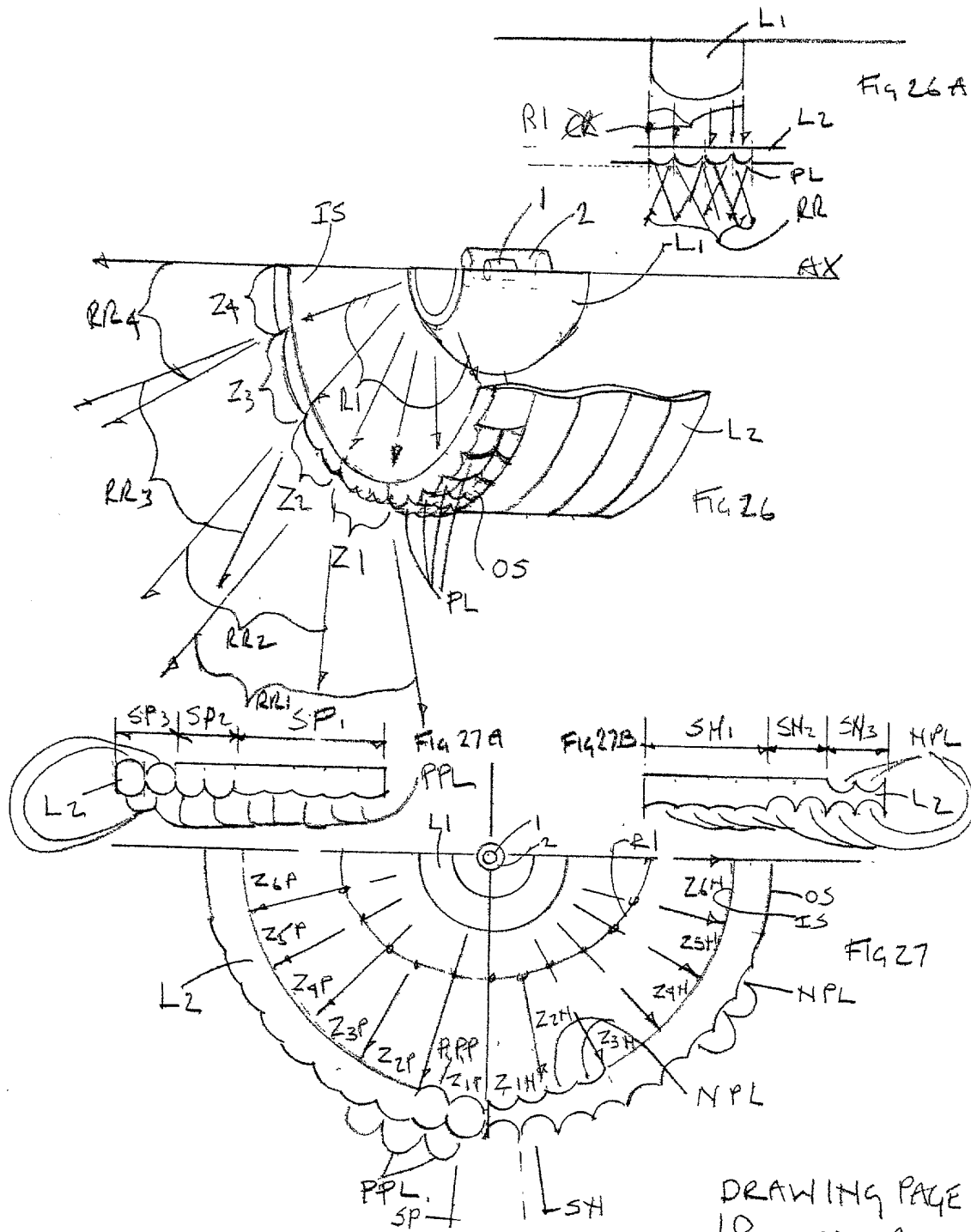
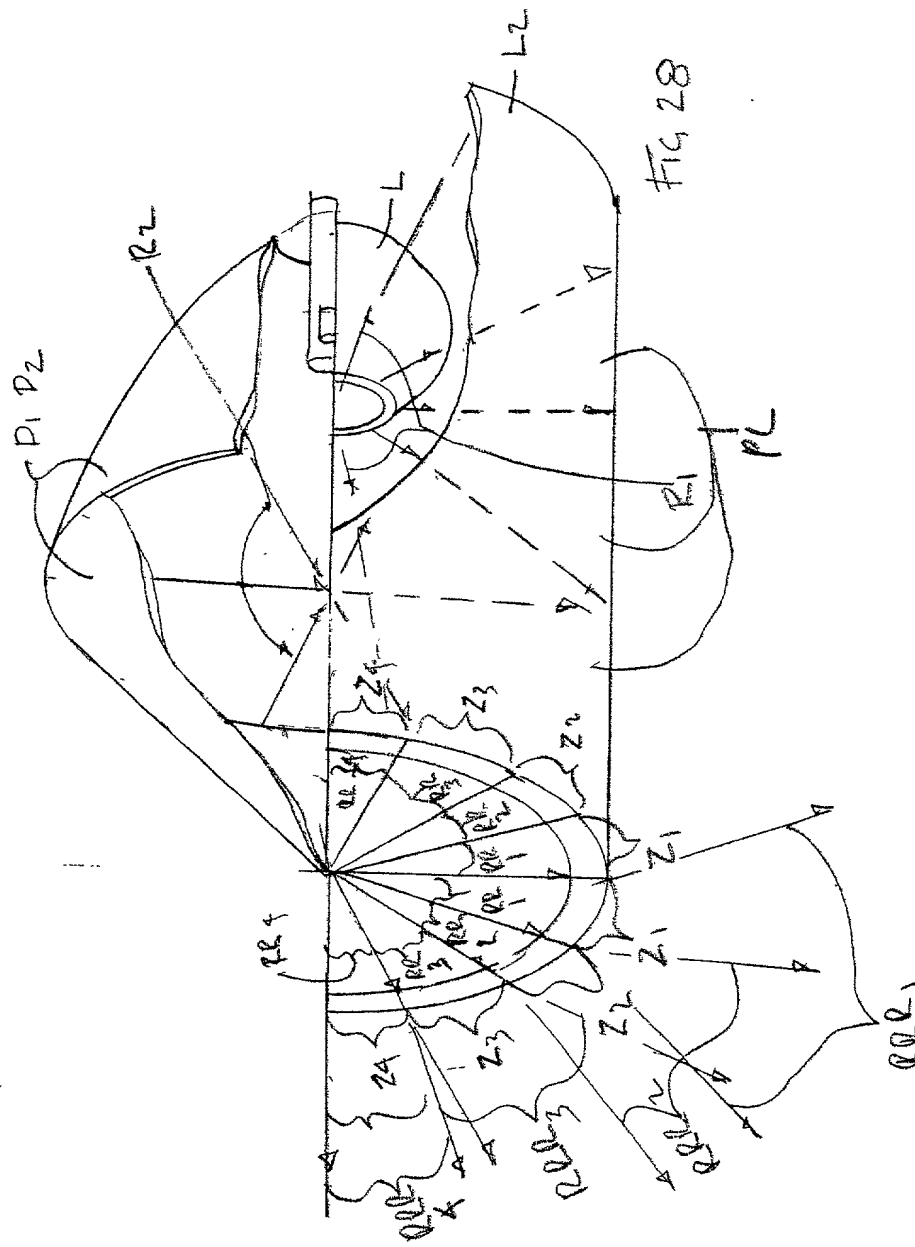


FIG 25A.



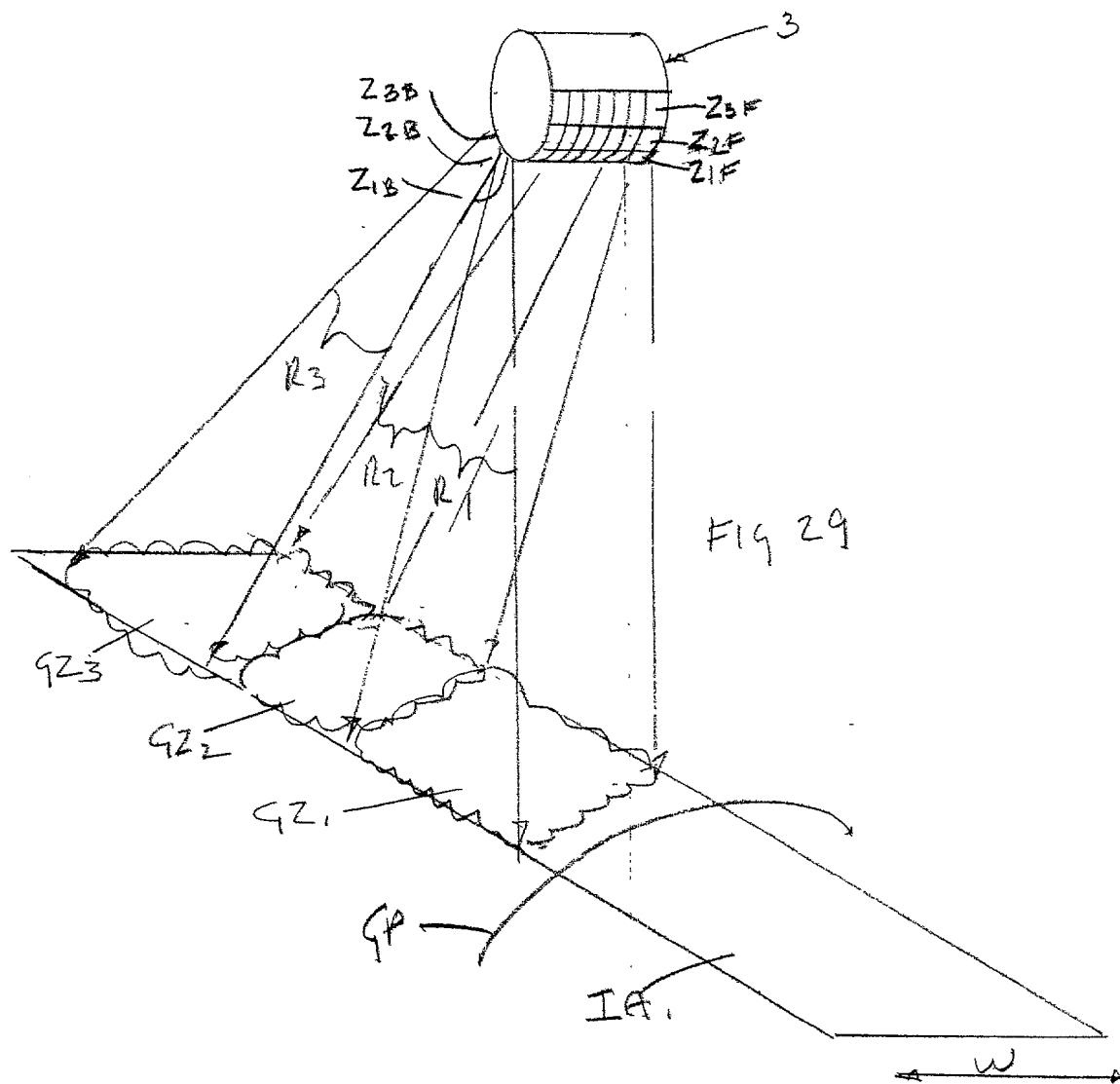
[illegible]

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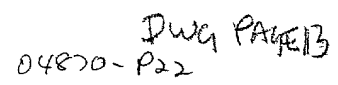
11 04870-922

0574119-053101

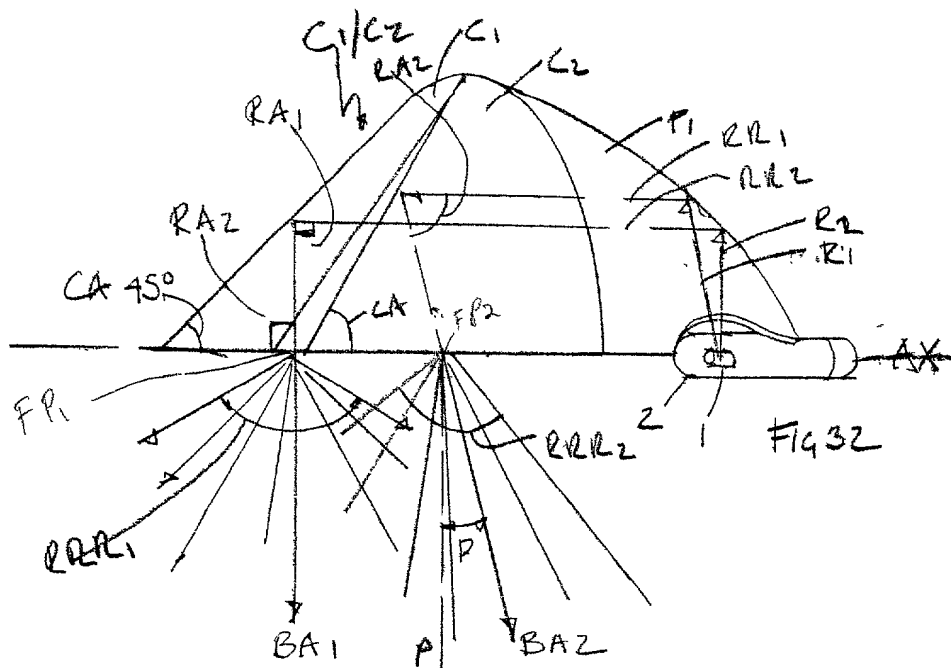


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FIG. 30 is a schematic diagram of a curved structure, possibly a bridge or a large arch, composed of several segments. The structure is supported by a base at the right end, which is labeled with '1' and '2'. A force vector  $P_1$  is applied at the top of the structure, pointing downwards and to the left. A force vector  $P_3$  is applied at the base, pointing upwards and to the right. A force vector  $P_2$  is applied at the base, pointing upwards and to the left. A force vector  $Q_1$  is applied at the top of the structure, pointing upwards and to the left. A force vector  $Q_2$  is applied at the base, pointing upwards and to the left. A force vector  $Q_3$  is applied at the base, pointing upwards and to the left. The diagram also shows various internal forces and moments, including  $R_1$ ,  $R_2$ ,  $R_3$ ,  $S_1$ ,  $S_2$ ,  $S_3$ ,  $T_1$ ,  $T_2$ ,  $T_3$ ,  $U_1$ ,  $U_2$ ,  $U_3$ ,  $V_1$ ,  $V_2$ ,  $V_3$ ,  $W_1$ ,  $W_2$ ,  $W_3$ ,  $X_1$ ,  $X_2$ ,  $X_3$ ,  $Y_1$ ,  $Y_2$ ,  $Y_3$ ,  $Z_1$ ,  $Z_2$ ,  $Z_3$ ,  $A_1$ ,  $A_2$ ,  $A_3$ ,  $B_1$ ,  $B_2$ ,  $B_3$ ,  $C_1$ ,  $C_2$ ,  $C_3$ ,  $D_1$ ,  $D_2$ ,  $D_3$ ,  $E_1$ ,  $E_2$ ,  $E_3$ ,  $F_1$ ,  $F_2$ ,  $F_3$ ,  $G_1$ ,  $G_2$ ,  $G_3$ ,  $H_1$ ,  $H_2$ ,  $H_3$ ,  $I_1$ ,  $I_2$ ,  $I_3$ ,  $J_1$ ,  $J_2$ ,  $J_3$ ,  $K_1$ ,  $K_2$ ,  $K_3$ ,  $L_1$ ,  $L_2$ ,  $L_3$ ,  $M_1$ ,  $M_2$ ,  $M_3$ ,  $N_1$ ,  $N_2$ ,  $N_3$ ,  $O_1$ ,  $O_2$ ,  $O_3$ ,  $P_1$ ,  $P_2$ ,  $P_3$ ,  $Q_1$ ,  $Q_2$ ,  $Q_3$ ,  $R_1$ ,  $R_2$ ,  $R_3$ ,  $S_1$ ,  $S_2$ ,  $S_3$ ,  $T_1$ ,  $T_2$ ,  $T_3$ ,  $U_1$ ,  $U_2$ ,  $U_3$ ,  $V_1$ ,  $V_2$ ,  $V_3$ ,  $W_1$ ,  $W_2$ ,  $W_3$ ,  $X_1$ ,  $X_2$ ,  $X_3$ ,  $Y_1$ ,  $Y_2$ ,  $Y_3$ ,  $Z_1$ ,  $Z_2$ ,  $Z_3$ ,  $A_1$ ,  $A_2$ ,  $A_3$ ,  $B_1$ ,  $B_2$ ,  $B_3$ ,  $C_1$ ,  $C_2$ ,  $C_3$ ,  $D_1$ ,  $D_2$ ,  $D_3$ ,  $E_1$ ,  $E_2$ ,  $E_3$ ,  $F_1$ ,  $F_2$ ,  $F_3$ ,  $G_1$ ,  $G_2$ ,  $G_3$ ,  $H_1$ ,  $H_2$ ,  $H_3$ ,  $I_1$ ,  $I_2$ ,  $I_3$ ,  $J_1$ ,  $J_2$ ,  $J_3$ ,  $K_1$ ,  $K_2$ ,  $K_3$ ,  $L_1$ ,  $L_2$ ,  $L_3$ ,  $M_1$ ,  $M_2$ ,  $M_3$ ,  $N_1$ ,  $N_2$ ,  $N_3$ ,  $O_1$ ,  $O_2$ ,  $O_3$ ,  $P_1$ ,  $P_2$ ,  $P_3$ ,  $Q_1$ ,  $Q_2$ ,  $Q_3$ ,  $R_1$ ,  $R_2$ ,  $R_3$ ,  $S_1$ ,  $S_2$ ,  $S_3$ ,  $T_1$ ,  $T_2$ ,  $T_3$ ,  $U_1$ ,  $U_2$ ,  $U_3$ ,  $V_1$ ,  $V_2$ ,  $V_3$ ,  $W_1$ ,  $W_2$ ,  $W_3$ ,  $X_1$ ,  $X_2$ ,  $X_3$ ,  $Y_1$ ,  $Y_2$ ,  $Y_3$ ,  $Z_1$ ,  $Z_2$ ,  $Z_3$ ,  $A_1$ ,  $A_2$ ,  $A_3$ ,  $B_1$ ,  $B_2$ ,  $B_3$ ,  $C_1$ ,  $C_2$ ,  $C_3$ ,  $D_1$ ,  $D_2$ ,  $D_3$ ,  $E_1$ ,  $E_2$ ,  $E_3$ ,  $F_1$ ,  $F_2$ ,  $F_3$ ,  $G_1$ ,  $G_2$ ,  $G_3$ ,  $H_1$ ,  $H_2$ ,  $H_3$ ,  $I_1$ ,  $I_2$ ,  $I_3$ ,  $J_1$ ,  $J_2$ ,  $J_3$ ,  $K_1$ ,  $K_2$ ,  $K_3$ ,  $L_1$ ,  $L_2$ ,  $L_3$ ,  $M_1$ ,  $M_2$ ,  $M_3$ ,  $N_1$ ,  $N_2$ ,  $N_3$ ,  $O_1$ ,  $O_2$ ,  $O_3$ ,  $P_1$ ,  $P_2$ ,  $P_3$ ,  $Q_1$ ,  $Q_2$ ,  $Q_3$ ,  $R_1$ ,  $R_2$ ,  $R_3$ ,  $S_1$ ,  $S_2$ ,  $S_3$ ,  $T_1$ ,  $T_2$ ,  $T_3$ ,  $U_1$ ,  $U_2$ ,  $U_3$ ,  $V_1$ ,  $V_2$ ,  $V_3$ ,  $W_1$ ,  $W_2$ ,  $W_3$ ,  $X_1$ ,  $X_2$ ,  $X_3$ ,  $Y_1$ ,  $Y_2$ ,  $Y_3$ ,  $Z_1$ ,  $Z_2$ ,  $Z_3$ ,  $A_1$ ,  $A_2$ ,  $A_3$ ,  $B_1$ ,  $B_2$ ,  $B_3$ ,  $C_1$ ,  $C_2$ ,  $C_3$ ,  $D_1$ ,  $D_2$ ,  $D_3$ ,  $E_1$ ,  $E_2$ ,  $E_3$ ,  $F_1$ ,  $F_2$ ,  $F_3$ ,  $G_1$ ,  $G_2$ ,  $G_3$ ,  $H_1$ ,  $H_2$ ,  $H_3$ ,  $I_1$ ,  $I_2$ ,  $I_3$ ,  $J_1$ ,  $J_2$ ,  $J_3$ ,  $K_1$ ,  $K_2$ ,  $K_3$ ,  $L_1$ ,  $L_2$ ,  $L_3$ ,  $M_1$ ,  $M_2$ ,  $M_3$ ,  $N_1$ ,  $N_2$ ,  $N_3$ ,  $O_1$ ,  $O_2$ ,  $O_3$ ,  $P_1$ ,  $P_2$ ,  $P_3$ ,  $Q_1$ ,  $Q_2$ ,  $Q_3$ ,  $R_1$ ,  $R_2$ ,  $R_3$ ,  $S_1$ ,  $S_2$ ,  $S_3$ ,  $T_1$ ,  $T_2$ ,  $T_3$ ,  $U_1$ ,  $U_2$ ,  $U_3$ ,  $V_1$ ,  $V_2$ ,  $V_3$ ,  $W_1$ ,  $W_2$ ,  $W_3$ ,  $X_1$ ,  $X_2$ ,  $X_3$ ,  $Y_1$ ,  $Y_2$ ,  $Y_3$ ,  $Z_1$ ,  $Z_2$ ,  $Z_3$ ,  $A_1$ ,  $A_2$ ,  $A_3$ ,  $B_1$ ,  $B_2$ ,  $B_3$ ,  $C_1$ ,  $C_2$ ,  $C_3$ ,  $D_1$ ,  $D_2$ ,  $D_3$ ,  $E_1$ ,  $E_2$ ,  $E_3$ ,  $F_1$ ,  $F_2$ ,  $F_3$ ,  $G_1$ ,  $G_2$ ,  $G_3$ ,  $H_1$ ,  $H_2$ ,  $H_3$ ,  $I_1$ ,  $I_2$ ,  $I_3$ ,  $J_1$ ,  $J_2$ ,  $J_3$ ,  $K_1$ ,  $K_2$ ,  $K_3$ ,  $L_1$ ,  $L_2$ ,  $L_3$ ,  $M_1$ ,  $M_2$ ,  $M_3$ ,  $N_1$ ,  $N_2$ ,  $N_3$ ,  $O_1$ ,  $O_2$ ,  $O_3$ ,  $P_1$ ,  $P_2$ ,  $P_3$ ,  $Q_1$ ,  $Q_2$ ,  $Q_3$ ,  $R_1$ ,  $R_2$ ,  $R_3$ ,  $S_1$ ,  $S_2$ ,  $S_3$ ,  $T_1$ ,  $T_2$ ,  $T_3$ ,  $U_1$ ,  $U_2$ ,  $U_3$ ,  $V_1$ ,  $V_2$ ,  $V_3$ ,  $W_1$ ,  $W_2$ ,  $W_3$ ,  $X_1$ ,  $X_2$ ,  $X_3$ ,  $Y_1$ ,  $Y_2$ ,  $Y_3$ ,  $Z_1$ ,  $Z_2$ ,  $Z_3$ ,  $A_1$ ,  $A_2$ ,  $A_3$ ,  $B_1$ ,  $B_2$ ,  $B_3$ ,  $C_1$ ,  $C_2$ ,  $C_3$ ,  $D_1$ ,  $D_2$ ,  $D_3$ ,  $E_1$ ,  $E_2$ ,  $E_3$ ,  $F_1$ ,  $F_2$ ,  $F_3$ ,  $G_1$ ,  $G_2$ ,  $G_3$ ,  $H_1$ ,  $H_2$ ,  $H_3$ ,  $I_1$ ,  $I_2$ ,  $I_3$ ,  $J_1$ ,  $J_2$ ,  $J_3$ ,  $K_1$ ,  $K_2$ ,  $K_3$ ,  $L_1$ ,  $L_2$ ,  $L_3$ ,  $M_1$ ,  $M_2$ ,  $M_3$ ,  $N_1$ ,  $N_2$ ,  $N_3$ ,  $O_1$ ,  $O_2$ ,  $O_3$ ,  $P_1$ ,  $P_2$ ,  $P_3$ ,  $Q_1$ ,  $Q_2$ ,  $Q_3$ ,  $R_1$ ,  $R_2$ ,  $R_3$ ,  $S_1$ ,  $S_2$



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